

MATH 102-091. Quiz 2Name: _____
Serial #: _____

1. Find the coefficient of x^{10} in the Taylor series expansion about 0 (the McLaurin Series) of $f(x) = \sin(2x^2)$.

2. Find the radius and interval of convergence of the power series

$$\sum_{n=0}^{\infty} \frac{(-1)^n \sqrt{n} (2x - 1)^n}{3n + 2}.$$

3. Use differentiation and integration to find a power series expansion for

$$f(x) = \ln(2 + 3x).$$